

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) A method comprising:

determining ~~the~~ a protocol of an ad hoc service discovery request received from a client;
translating the protocol of the ad hoc service discovery request into a service discovery protocol used by an Internet-located service registry, the translated service discovery request being used to discover a service provider of the service requested;
detecting incompatibilities between the client and the service provider; and
translating the service provided to the client by the service provider in response to the detected incompatibilities.

2. (Currently amended) The method according to Claim 1, wherein translating the protocol includes selecting one of a plurality of service discovery interfaces that are compatible with the Internet-located service registry.

3. (Original) The method according to Claim 2, wherein the number of service discovery interfaces is programmable.

4. (Original) The method according to Claim 1, wherein detecting the incompatibilities comprises analyzing session descriptions contained within Session Initiation Protocol (SIP) messages exchanged between the client and the service provider.

5. (Original) The method according to Claim 4, wherein the session descriptions transmitted by the client reflect the capabilities of the client.

6. (Original) The method according to Claim 5, wherein the capabilities of the client include media session capabilities.

7. (Original) The method according to Claim 6, wherein the session descriptions transmitted by the service provider reflect the capabilities of the service provider.

8. (Original) The method according to Claim 7, wherein the capabilities of the service provider include media session capabilities.

9. (Original) The method according to Claim 8, wherein translating the service provided comprises translating media received from the service provider into a format compatible with the media session capabilities of the client.

10. (Original) The method according to Claim 4, wherein translating the service provided comprises:

- modifying the session descriptions received from the client to match the session descriptions received from the service provider; and
- transmitting the modified session descriptions to the service provider.

11. (Original) The method according to Claim 10, wherein translating the service provided further comprises:

- modifying the session descriptions received from the service provider to match the session descriptions received from the client; and
- transmitting the modified session descriptions to the client.

12. (Original) The method according to Claim 4, wherein translating the service provided comprises:

- receiving messages from the service provider using a first transport protocol; and
- transmitting the messages received from the service provider to the client using a second transport protocol.

13. (Original) The method according to Claim 12, wherein translating the service provided comprises:

receiving messages from the client using the second transport protocol; and
transmitting the messages received from the client to the service provider using the first transport protocol.

14. (Currently amended) A system, comprising:

a service requestor coupled to the service translation system and adapted to submit a service request using a first ad hoc service discovery protocol;

a service translation proxy coupled to the service requestor and adapted to translate the first ad hoc service discovery protocol of the service request into a second ad hoc service discovery protocol, wherein at least one of the first and second ad hoc service discovery protocols utilize an Internet-located service registry; and

a service provider coupled to the service translation system and adapted to provide the service requested, wherein the service translation proxy is further adapted to translate the service provided into a format that is compatible with the service requestor.

15. (Previously presented) The system according to Claim 14, wherein the service translation proxy comprises a programmable number of service discovery protocol interfaces.

16. (Cancelled)

17. (Currently amended) An apparatus, comprising:

means for receiving a service request from a service requestor;

means for translating the service request from a first ad hoc service discovery protocol to a second ad hoc service discovery protocol, wherein at least one of the first and second ad hoc service discovery protocols utilize an Internet-located service registry;

means for locating a service provider to provide the service requested using the second ad hoc service discovery protocol; and

means for translating the service provided into a format that is compatible with capability information associated with the service requestor.

18. (Previously presented) The apparatus according to Claim 17, further comprising:
means for receiving the service provided using a first transport protocol; and
means for providing the service provided using a second transport protocol.

19. (Currently amended) A computer-readable medium having instructions stored thereon which are executable by an apparatus to perform service translation proxy for facilitating network service translations by performing steps comprising:

receiving a service request from a service requestor;

translating the service request from a first service ad hoc discovery protocol to a second ad hoc service discovery protocol, wherein at least one of the first and second ad hoc service discovery protocols utilize an Internet-located service registry;

locating a service provider to provide the service requested using the second ad hoc service discovery protocol; and

translating the service provided into a format that is compatible with capability information associated with the service requestor.

20. (Currently amended) The computer-readable medium according to Claim 19, wherein locating a service provider comprises issuing the translated service request to [[a]] the Internet-located service registry.

21. (Original) The computer-readable medium according to Claim 19, wherein locating a service provider comprises forwarding the service request to another service translation proxy located within the network.

22. (Currently amended) A home network, comprising:

a plurality of home devices adapted to exchange media content in a first format via a first ad hoc service discovery protocol;

at least one mobile device adapted to exchange media content in a second format via a second ad hoc service discovery protocol, wherein at least one of the first and second ad hoc service discovery protocols utilize an Internet-located service registry; and

a service translation proxy coupled to the plurality of home devices and the at least one mobile device, wherein the service translation proxy is adapted to translate the media exchanged between the plurality of home devices and the at least one mobile device in response to their respective capabilities determined via the respective first and second service ad hoc discovery protocols.

23. (Original) The home network according to Claim 22, wherein the service translation proxy is coupled to the plurality of home devices and the at least one mobile device via a proximity connection.

24. (Original) The home network according to Claim 23, wherein the proximity connection includes a Bluetooth connection.

25. (Currently amended) A method comprising:

establishing a mobile device and a home device as entities of a wireless home network, wherein the mobile device communicates via a first ad hoc service discovery protocol and the second device communicates via a second ad hoc service discovery protocol, wherein at least one of the first and second ad hoc service discovery protocols utilize an Internet-located service registry;

evaluating differences in media capabilities between the mobile device and the home device via the respective first and second ad hoc service discovery protocols; and

translating media exchanged between the mobile device and the home device in response to the media capability differences between the mobile device and the home device.

26. (Original) The method according to Claim 25, wherein evaluating the differences in media capabilities comprises:

automatically determining the media format capability of the mobile device using a service translation proxy; and

automatically determining the media format capability of the home device using the service translation proxy.

27. (Original) The method according to Claim 26, wherein translating the media comprises:

translating the media format received from the home device into media format that is compatible with the media format capability of the mobile device; and

translating the media format received from the mobile device into media format that is compatible with the media format capability of the home device.

28. (Currently amended) An apparatus comprising:

a network interface capable of communicating with a service requestor via a first ad hoc service discovery protocol and at least one service provider via a second ad hoc service discovery protocol, wherein at least one of the first and second ad hoc service discovery protocols utilize an Internet-located service registry;

a processor coupled to the network interface; ~~and~~

~~memory coupled to the processor, wherein the memory includes~~ and configured with instructions that cause the processor to:

receive a service request from the service requestor;

translate the service request from the first ad hoc service discovery protocol to the second ad hoc service discovery protocol;

locate the service provider to provide the service requested via the second ad hoc service discovery protocol; and

translate the service provided into a format that is compatible with capability information associated with the service requestor as determined by the first and second ad hoc service discovery protocols.

29. (New) The apparatus according to Claim 28, wherein locating the service provider comprises issuing the translated service request to the Internet-located service registry.

30. (New) The apparatus according to Claim 28, translating the service provided comprises analyzing session descriptions contained within Session Initiation Protocol (SIP) messages exchanged between the service requestor and the service provider.

31. (New) The apparatus according to Claim 28, wherein translating the service provided comprises:

receiving messages from the service provider using a first transport protocol; and

transmitting the messages received from the service provider to the service requestor using a second transport protocol.